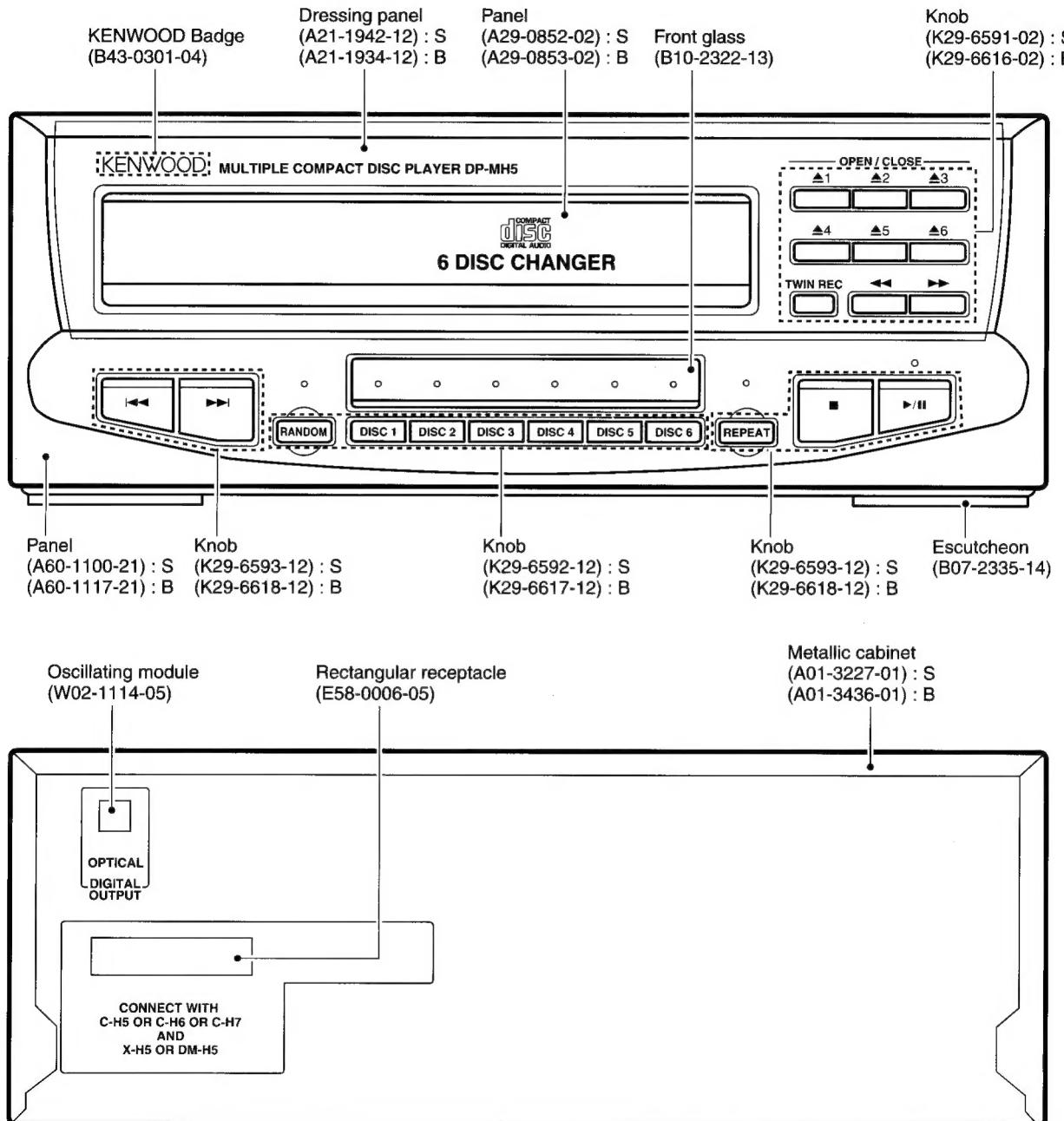


MULTIPLE COMPACT DISC PLAYER  
**DP-MH5**  
 SERVICE MANUAL  
 (XD-6000/8000/9580 SERIES)

**KENWOOD**

© 1997-4/B51-5306-00 (K/K) 2341



B : Black, S : Silver

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040.10, Chapter 1, Subchapter J.

**DANGER** : Laser radiation when open and interlock defeated.  
 AVOID DIRECT EXPOSURE TO BEAM.

**PRECAUTIONS FOR REPAIR**

DP-MH5 does not have power supply transformer. Use A-H5 or C-H series or PS-94UA power supply jig to supply power.

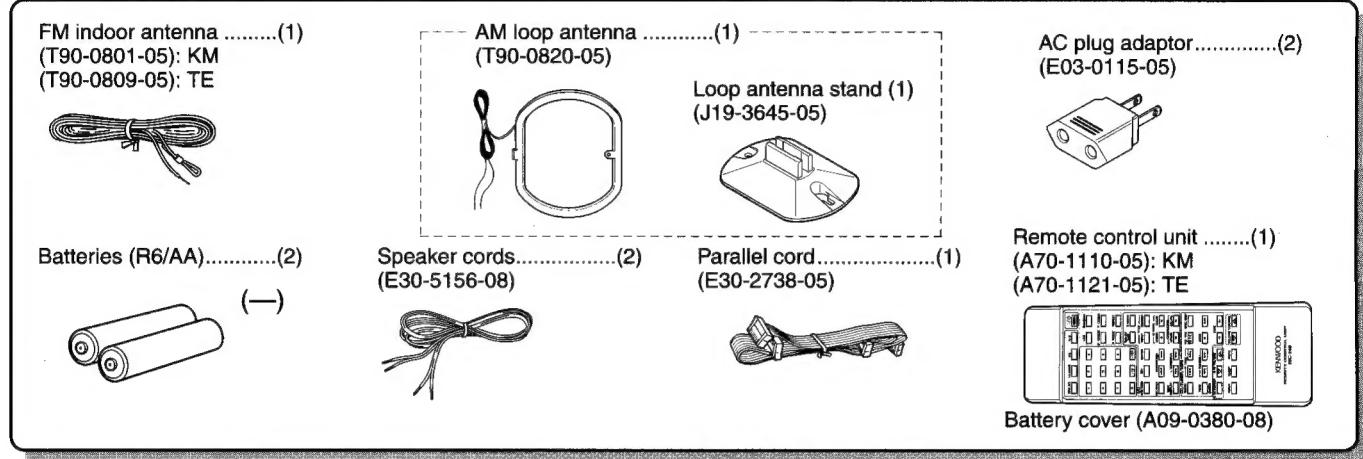
Refer to DP-MG7 service manual (B51-5177-00), if require disassembly for repair/circuit description in detail.

## CONTENTS / ACCESSORIES

## Contents

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## Accessories



## System configuration

SYSTEM	TUNER / EQUALIZER	AMPLIFIER	CASSETTE DECK	CD PLAYER	SPEAKER	MD RECORDER
XD-6060	C-H51	A-H5	X-H5	DP-H5	LS-H6	—
XD-6500	C-H5	A-H5	X-H5	DP-MH5	LS-H5	—
XD-6560	C-H51	A-H5	X-H5	DP-MH5	LS-H6	—
XD-8000	C-H6	A-H5	X-H5	DP-H5	LS-H6	—
XD-8550	C-H6	A-H5	X-H5	DP-MH5	LS-H6	—
XD-8560	C-H61	A-H5	X-H5	DP-MH5	LS-H6	—
XD-6000/W	C-H5/W	A-H5	X-H5	DP-H5	LS-H5	—
XD-6050/W	C-H5/W	A-H5	X-H5	DP-H5	LS-H5	—
XD-6550/W	C-H5/W	A-H5	X-H5	DP-MH5	LS-H5	—
XD-8050/W	C-H6/W	A-H5	X-H5	DP-H5	LS-H6	—
XD-8500/W	C-H6	A-H5	X-H5	DP-MH5	LS-H6	—
XD-9580MD	C-H7	A-H5	—	DP-MH5	LS-H6	DM-H5

## Cautions

**Note related to transportation and movement  
(CD player)**

Before transporting or moving this unit, carry out the following operations.

1. Turn the power ON. Then press the OPEN/CLOSE (▲) key of the CD player and take out all CDs

DP-MH5 : Ensure that no CD is loaded in any of the DISC1 to DISC6 trays by opening each of them.

2. Select the "CD" input and ensure that the following message is displayed.

CD NO DISC

3. Wait for a few seconds then turn power off.

**Beware of condensation**

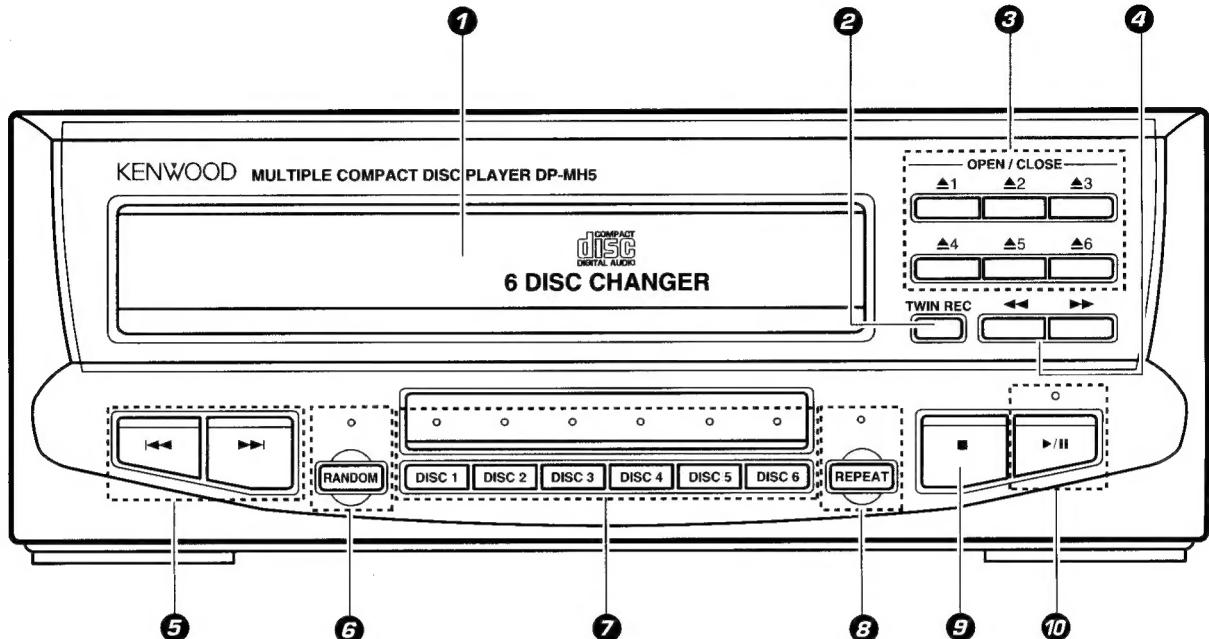
When water vapor comes into contact with the surface of cold material, water drops are produced. If condensation occurs, correct operation may not be possible, or the unit may not function correctly. This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit for several hours.)

**Be especially careful in the following conditions:**

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

## CONTROLS

## CD player unit ( DP-MH5)



## ① Disc tray

## ② TWIN REC key

Press when recording CD simultaneously onto a MD and tape.

## ③ OPEN / CLOSE (▲1 ~ ▲6) key

The disc tray is opened and closed.

## ④ Fast forward and fast reverse (◀◀ ▶▶) keys

Press to move the played position forward or backward.

## ⑤ Skip (◀◀ ▶▶) keys

Press to skip tracks to the beginning of the desired track.

## ⑥ RANDOM key / Indicator

Press to play tracks in a different order than the recorded order.

## ⑦ Disc selector (DISC 1 to DISC 6) keys / Indicators

Press one of the keys to select the disc to be played. If a disc exists in the selected tray, the indicated of the key lights up. The indicator blinks during playback of the disc.

## ⑧ REPEAT key / Indicator

Press to start repeat playback.

## ⑨ Stop (■) key

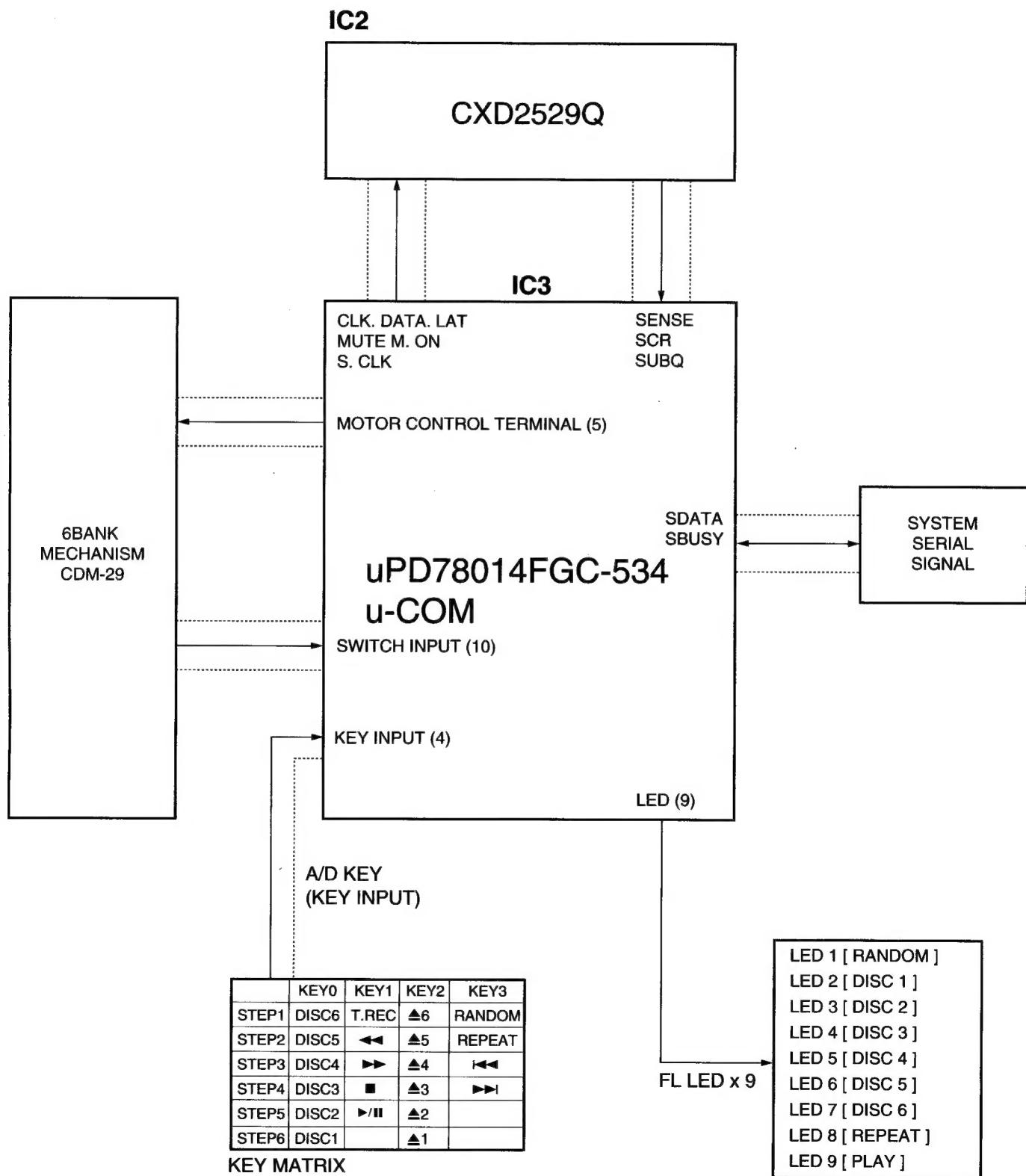
## ⑩ Play / pause (▶/II) key

The playback or pause functions are activated alternately every time the key is pressed.

## CIRCUIT DESCRIPTION

## 1. Microprocessor : uPD78014FGC534 (X32-, IC3)

## 1-1 Microprocessor periphery block diagram



## CIRCUIT DESCRIPTION

## 1-2 Pin description

Pin No.	Pin Name	I/O	Description	Active
1	/T.OPEN	I	Tray open sw	
2	/D.DET	I	Disc check	
3	MOTOR1	O	Tray motor	
4	MOTOR2	O	Loading motor	
5	MOTOR3	O	Tray motor	
6	MOTOR4	O	Loading motor	
7	S.DATA	I/O	in/output port of serial data	
8	S.BUSY	I/O	In/output port of serial busy	
9	Vss	-	GND	
10	/XLAT	O	Output port of latch to CXD2529Q	
11	/DATA	O	Output port of data to CXD2529Q	
12	/CLK	O	Output port of clock to CXD2529Q	
13	MON	O	Control port of focus function	
14	SYS.MUTE	O	Output port of system mute to CXD2529Q	
15	/LDC	O	Output port of laser	L : led on
16,17	N.C.	O	No use	
18	SENSE	I	Input port of SENSE signal from CXD2529Q	
19	LED9	O	LED9(play)	
20	LED8	O	LED8(repeat)	
21-23	LED6-4	O	Disc 6-4	
24	Vss	-	Microprocessor GND	
25-27	LED3-1	O	LED3-1(disc3-1)	
28	LED7	O	LED7(random)	
29,30	N.C.	I	No use	
31	T.DOWN	I	Tray down switch	L : down
32-34	N.C.	O	No use	
35	/RESET	I	Input port of RESET	
36	/DEFECT	I	Output port of detection for poor disk	L : countermeasure
37,38	N.C.	O	No use	
39	SCOR	I	Input port of sub-code synchro frame signal	
40	Vdd	-	Power supply (+5V)	
41,42	X1,2	-	Oscillation port	
43	IC	-	Connect to GND	
44,45	N.C.	-	No use	
46	Avss	-	Gnd port of A/D converter	
47-50	KEY0-3	I	Input port of A/D key 0-3	
51	/SLTSW	I	Input port of start limit switch	L : slt sw on
52	/T CLOSE	I	Tray close sw	L : close
53	/H.POS	I	Stocker position sw	L : home position
54	/D.CNT	I	Disc count/detection of height sw	H : height ok
55	Avdd	-	Power supply of A/D converter	
56	Avref	-	Input port of standard voltage for A/D converter	
57	/ST.OUT	I	Single tray position detection sw	L : slider store position
58	/ST.IN	I	Single tray position detection sw	L : slider load position
59	/ST.ON	I	Single stocker detection sw	L : single tray
60	/TU DOWN	I	Traverse unit down detection	L : down
61	C.BOS	I	Center Bos detection sw	L : center bos ok
62	SUBQ	I	Input port of Q data	
63	N.C.	O	No use	
64	SQCK	O	Clock output port of Q data read	

## CIRCUIT DESCRIPTION

## 2. TEST MODE

## 2-1 MODE "00"

## MODE "00" : USE FOR TEST OR ALIGNMENT

PRESS KEY	LED			OPERATION		REMARK
AC-ON AND KEEP TO PRESS "DISC 1"	REPEAT	RANDOM	PLAY	DISC 1 TRAY SELF OPEN		SET THE TEST MODE
▶/II PLAY / PAUSE	ON/OFF	OFF	ON/OFF	DISC TRAY CLOSE & 03 MODE		TE-BAL ALIGNMENT
				CHANGE THE MODE (03, 05)	05 MODE	FE/FG/TG ALIGNMENT
▶ FF	ON/OFF	OFF	OFF	PICK MANUAL FEED (IN TO OUT)		STOP MODE ONLY
◀ FB	ON/OFF	OFF	OFF	PICK MANUAL FEED (OUT TO IN)		STOP MODE ONLY
▶ UP	—	—	—	LED ALL ON ↔ LED ALL OFF		
▲ OPEN/CLOSE (DISC 1~6)	ON/OFF	OFF	OFF	TRAY 1~6 OPEN/CLOSE		
■ STOP	ON/OFF	OFF	OFF	STOP (NO STOCK FOR DISC 1)		
DISC 6	ON/OFF	ON/OFF	—	SHIFT TO "MODE 15"		
◀ DOWN	OFF	OFF	OFF			CANCEL THE TEST MODE

## 2-2 MODE "12"

## MODE "12" : DISC TRAY OPEN-CLOSE &amp; CHANGE

PRESS KEY	LED			OPERATION		REMARK
AC-ON AND KEEP TO PRESS "DISC 4"	REPEAT	RANDOM	ON/OFF	DISC 1	DISC 1 TRAY OPEN (0.5sec)→CLOSE	
			ON/OFF	DISC 2	DISC 2 TRAY OPEN (0.5sec)→CLOSE	
				DISC 3	DISC 3 TRAY OPEN (0.5sec)→CLOSE	
				DISC 4	DISC 4 TRAY OPEN (0.5sec)→CLOSE	
				DISC 5	DISC 5 TRAY OPEN (0.5sec)→CLOSE	
				DISC 6	DISC 6 TRAY OPEN (0.5sec)→CLOSE	

※ IF THIS MODE FINISHED, RETURN TO NORMAL CONDITION

## 2-3 MODE "13"

## MODE "13" : DISC AUTO CHANGE

PRESS KEY	LED			OPERATION		REMARK
AC-ON AND KEEP TO PRESS "DISC 5"	REPEAT	RANDOM	ON/OFF	DISC 1	DISC 1 DISC SENSE	
			ON/OFF	DISC 2	DISC 2 DISC SENSE	
				DISC 3	DISC 3 DISC SENSE	
				DISC 4	DISC 4 DISC SENSE	
				DISC 5	DISC 5 DISC SENSE	
				DISC 6	DISC 6 DISC SENSE → STOP	

※ IF THIS MODE FINISHED, RETURN TO NORMAL CONDITION

## 2-4 MODE "15"

## MODE "15" : MECHA MANUAL MODE (ESCAPE FOR MECHA-JAM)

PRESS KEY	LED LAMP			OPERATION		REMARK
AC-ON AND KEEP TO PRESS "DISC 6"	REPEAT	RANDOM	ON/OFF			
DISC 1	ON/OFF	ON/OFF	ON/OFF	IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE OPEN-SIDE.		SET THE TEST MODE LED (DISC 1) BLINKS UP WHILE PRESSING THE DISC1 KEY
DISC 2	ON/OFF	ON/OFF	—	IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE CLOSE-SIDE.		LED (DISC 2) BLINKS UP WHILE PRESSING THE DISC 2 KEY
DISC 4	ON/OFF	ON/OFF	—	IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE UP-SIDE.		LED (DISC 4) BLINKS UP WHILE PRESSING THE DISC 4 KEY
DISC 5	ON/OFF	ON/OFF	—	IF KEEP TO PRESS THIS KEY, THE MOTOR DRIVE DOWN-SIDE.		LED (DISC 5) BLINKS UP WHILE PRESSING THE DISC 5 KEY

※ THE KEYS OF DISC 3 AND DISC 6 ARE NOT OPERATE IN MODE "15"

NOTE : LED ON/OFF (TURN ON AND OFF) LED ON (TURN ON) LED OFF (TURN OFF)

## ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	PLAYER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>While pressing the "DISC 1" key, turn the AC ON. { Refer to test mode (MODE 0 0) }</b>							
1	LASER POWER	—	Apply the sensor section of optical power meter on the pickup lens.	Press the PLAY/PAUSE key, then confirm that the LED is "03".	—	On the power from 0.08 to 0.15 mW, when the diffraction grating is correctly aligned with the RF level of 0.6 Vp-p or more.	(a)
2	TRACKING ERROR BALANCE	Test disc Type 4	Connect an oscilloscope as follows. CH1 : RF (CN2 pin 1) CH2 : TE (CN2 pin 6)	Press the PLAY/PAUSE key, then confirm that the LED is "03".	TE BALANCE VR2	Symmetry between upper and lower patterns	
3	FOCUS ERROR BALANCE	Test disc Type 4	Connect an oscilloscope as follows. CH1 : RF (CN2 pin 1) CH2 : FE (CN2 pin 2)	Press the PLAY/PAUSE key, then confirm that the LED is "05".	FE BALANCE VR1	Optimum eye pattern	
4	TRACKING GAIN	Test disc Type 4 Apply signal of 1.2 kHz, 50mVrms to CN2 pin 5-6.	Connect a LPF to CN2 pin 5-6 to which you connect an oscilloscope or AC voltmeters.	Press the PLAY/PAUSE key, then confirm that the LED is "05".	TRACKING GAIN VR3	Two VTVMs should read the same value.	(e)

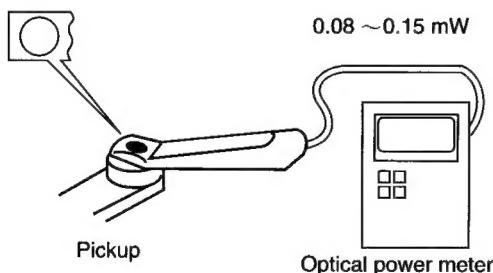
## Note:

Type 4 disc : SONY YEDS-18 Test Disc or equivalent.

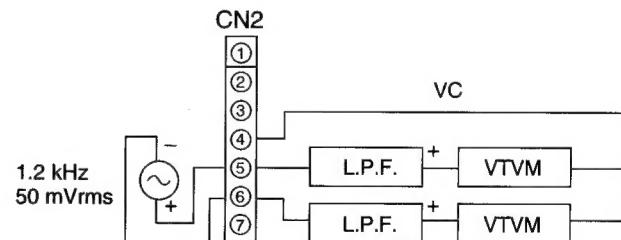
LPF: Around  $47\text{ k}\Omega$  +  $390\text{ pF}$  or so.

Step 1~4 are in Test Mode.

## (a) Laser power



## (e) Tracking gain





# ARD(Component side view)

B

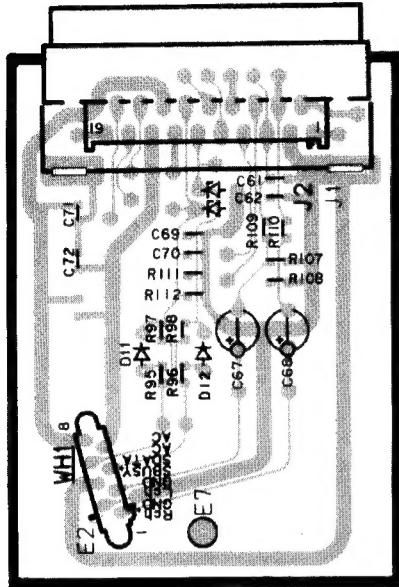
C

D

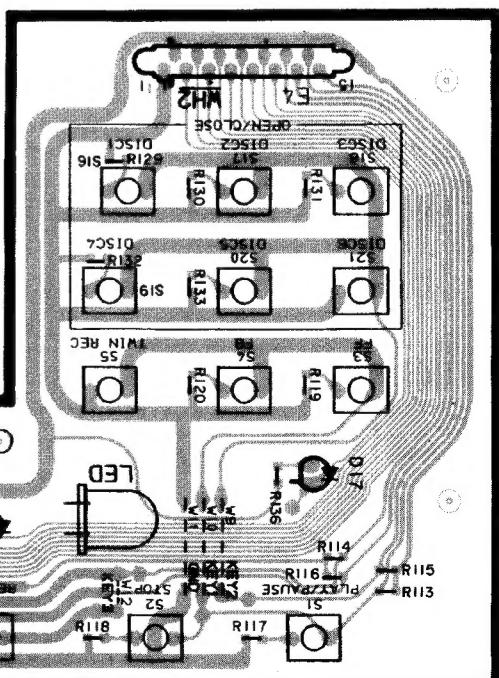
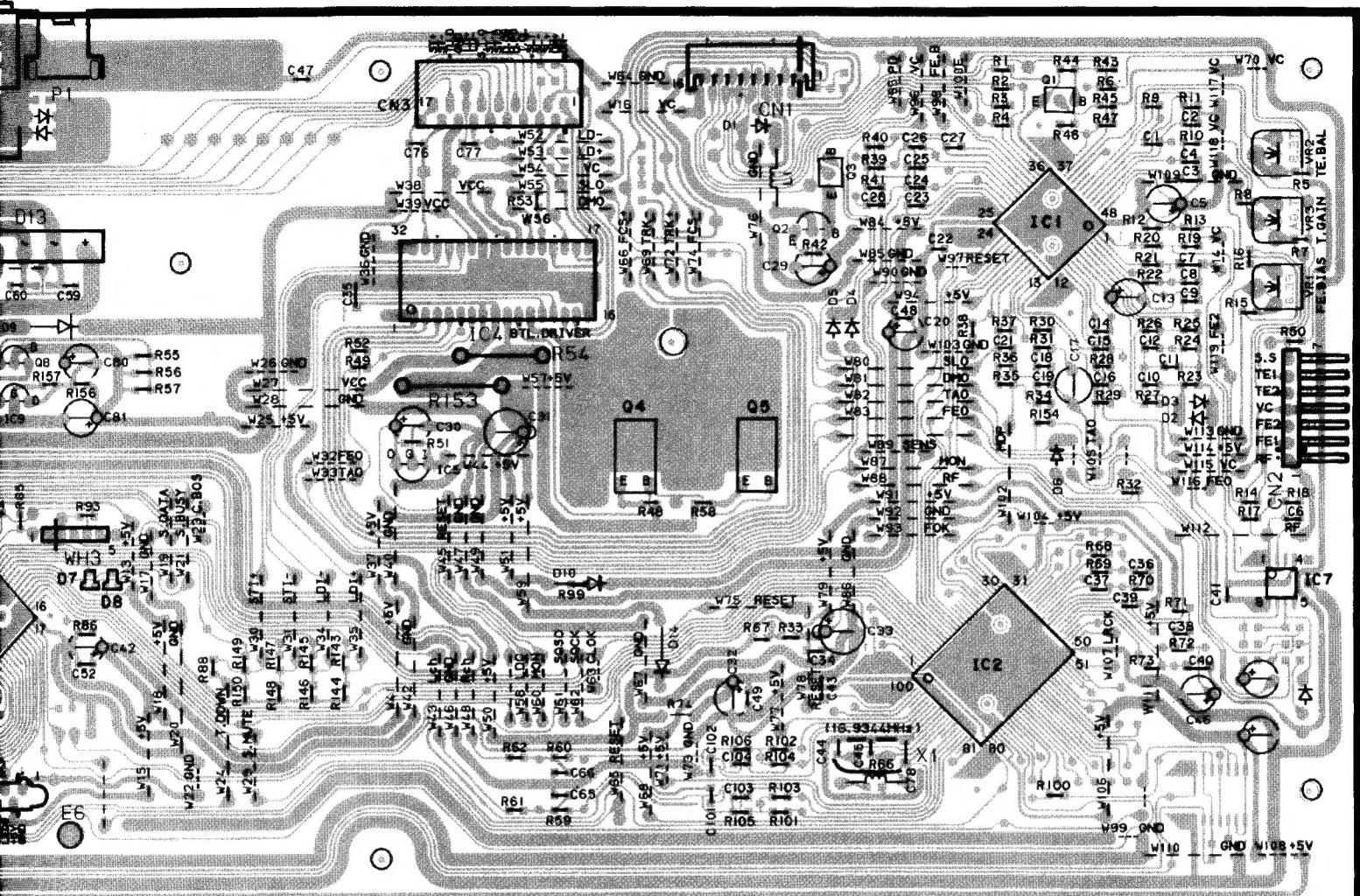
E

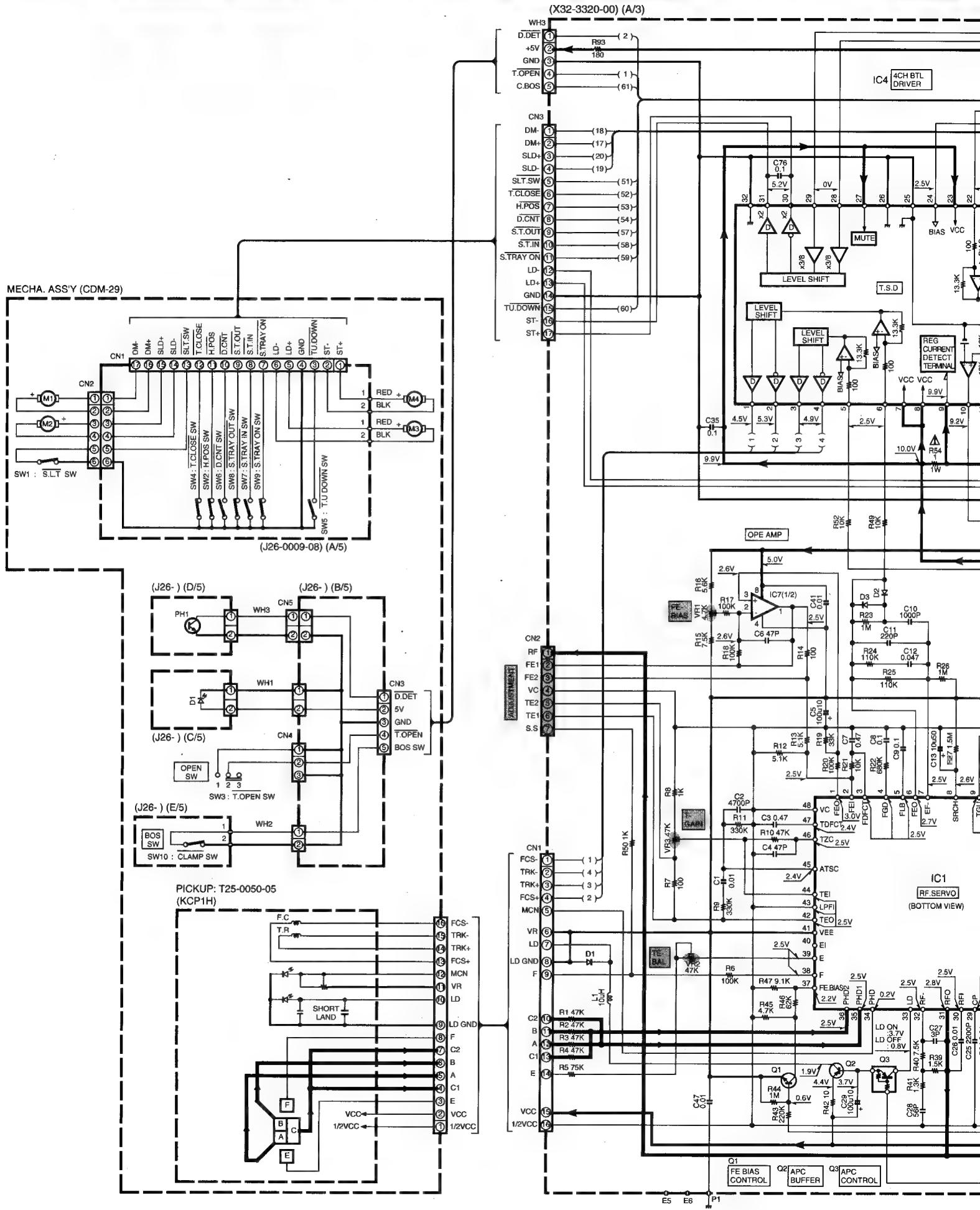
F

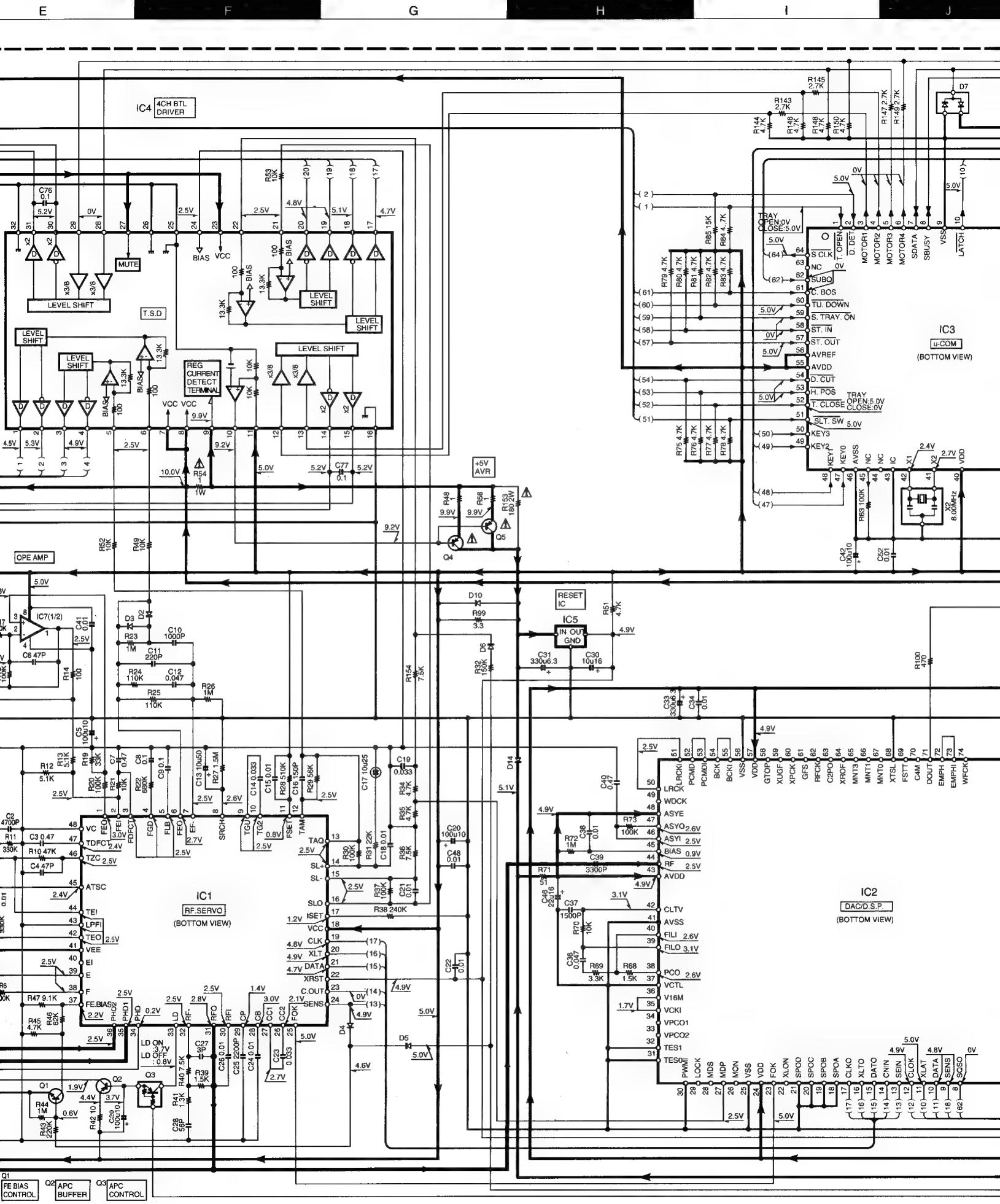
CONNECT WITH  
C-H51 OR C-H61 OR C-H7  
AND  
X-H5 OR DM-H5

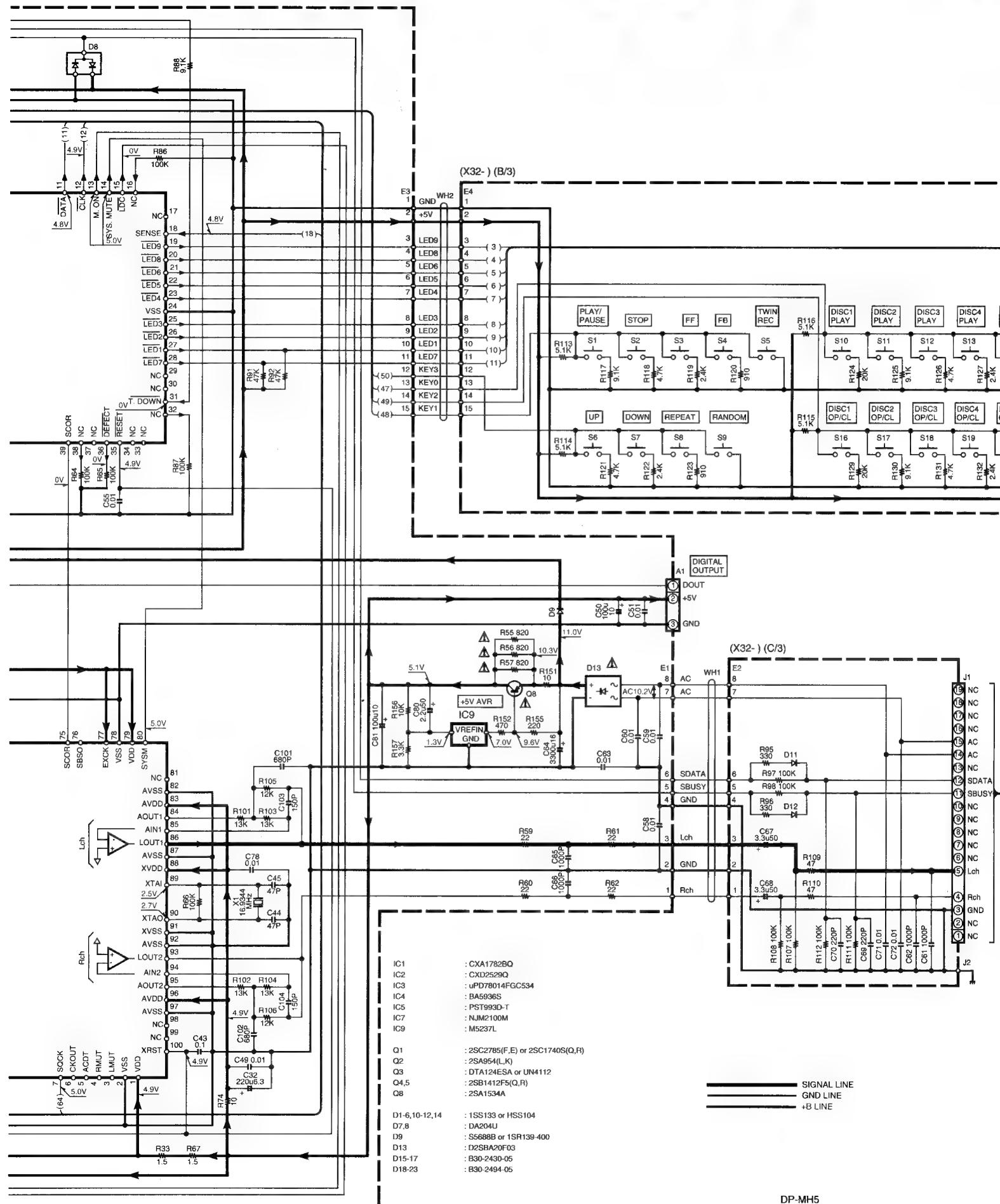


X32-3320-00 A/3 (J70-0996-21)







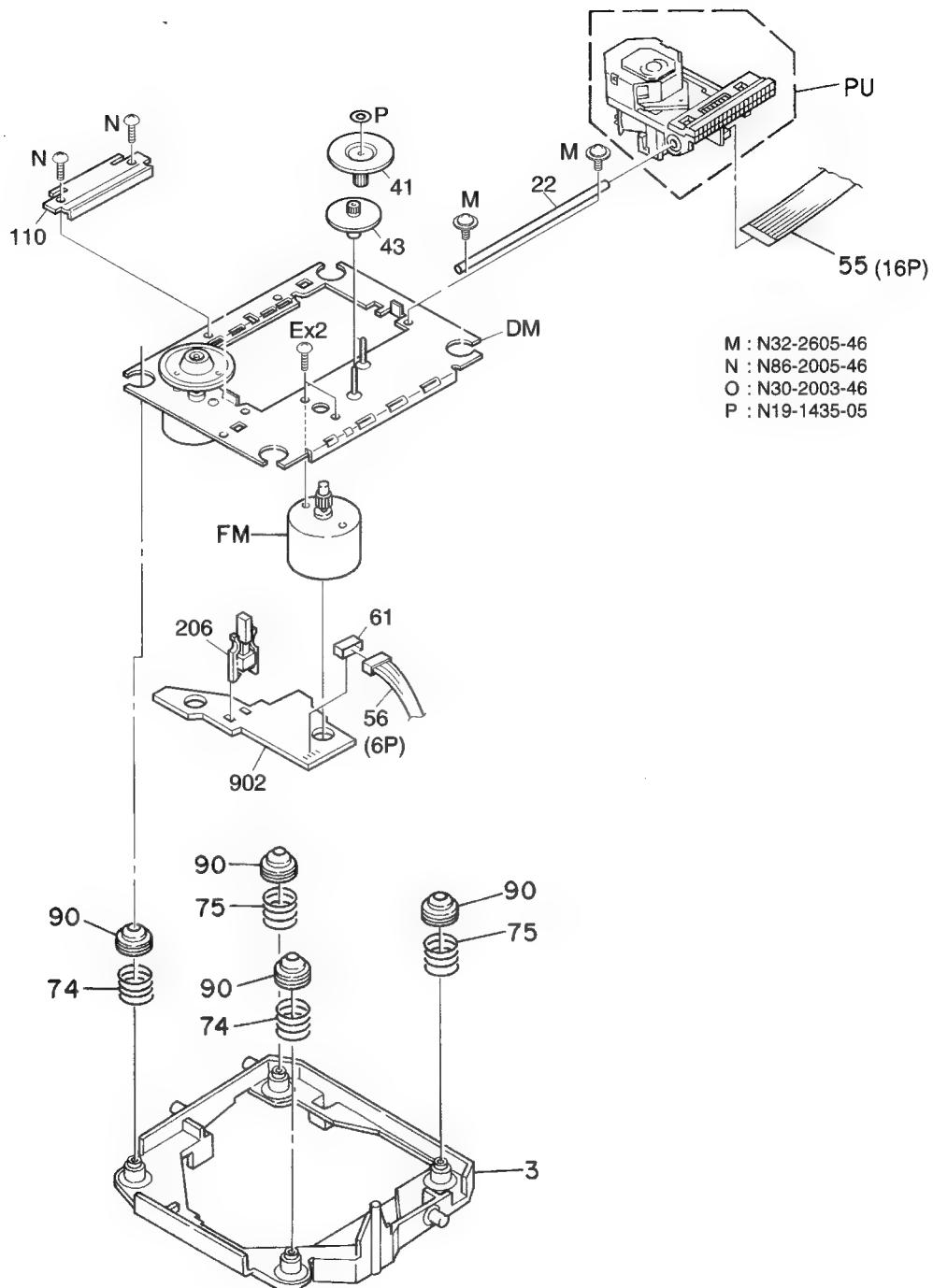




## EXPLODED VIEW (CD MECHANISM)

A

B

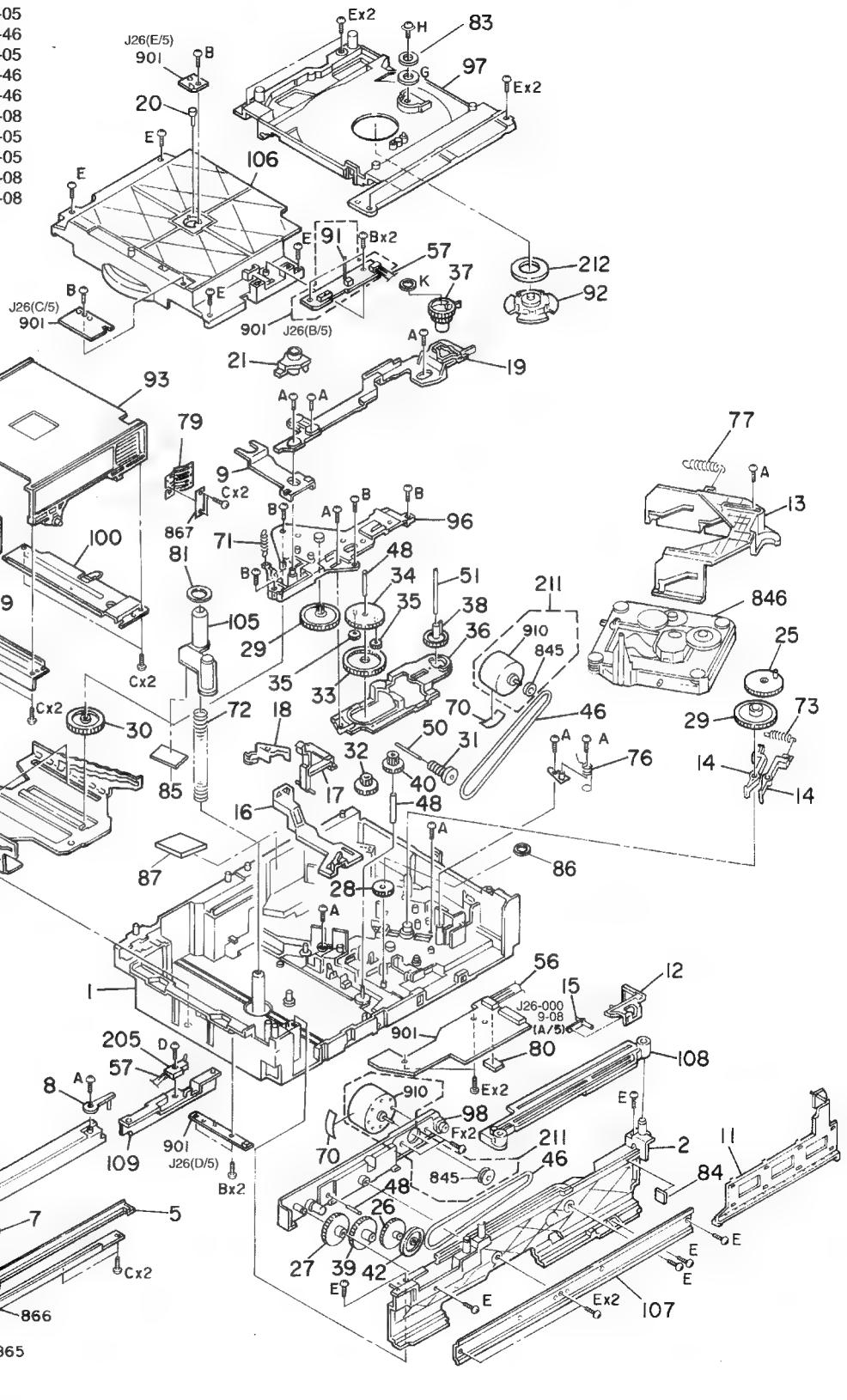


## EXPLODED VIEW (CD MECHANISM)

C

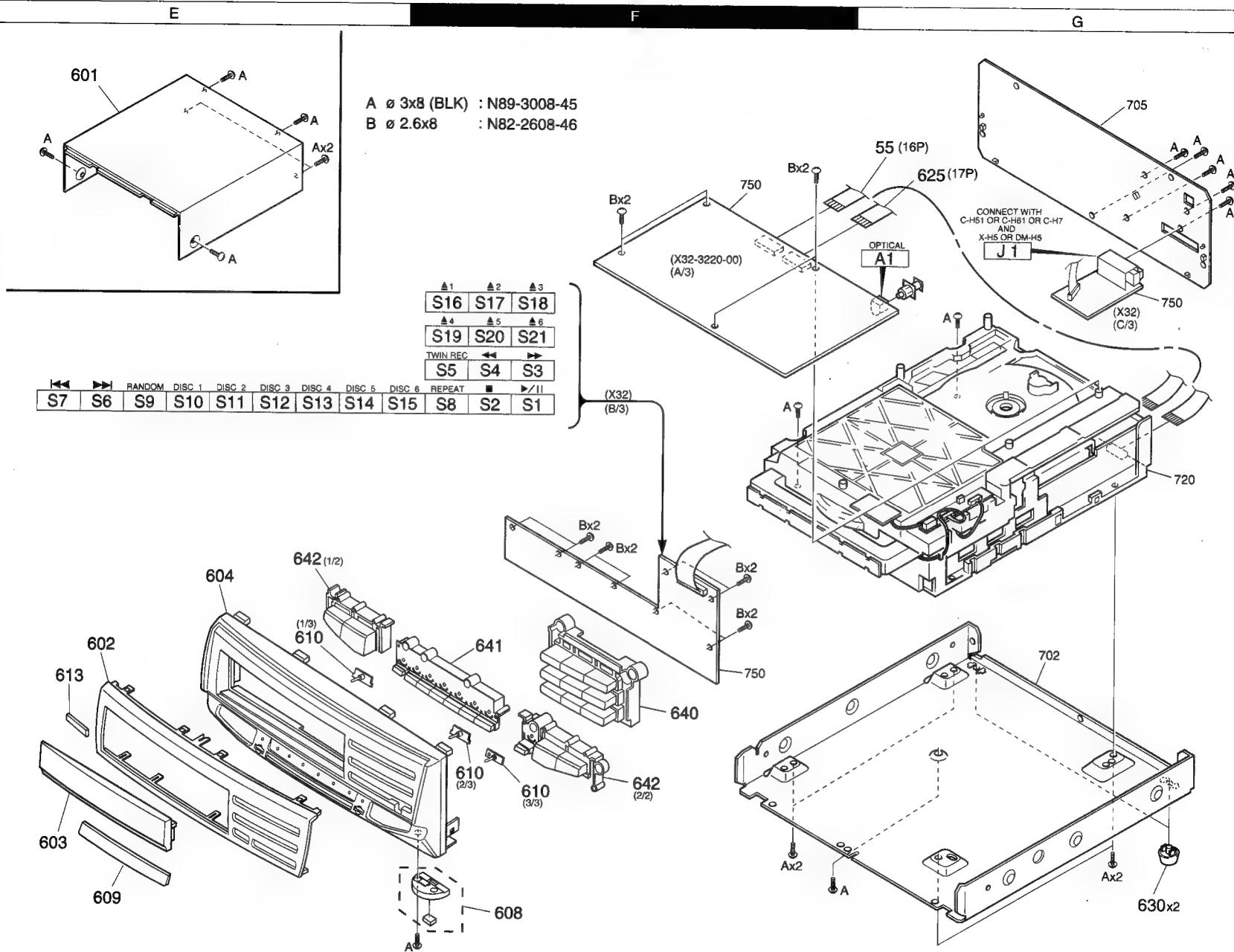
D

A $\varnothing$ 2x7	:	N09-3225-05
B $\varnothing$ 2x8	:	N89-2008-46
C $\varnothing$ 2x6.5	:	N89-3176-05
D $\varnothing$ 2x12	:	N82-2012-46
E $\varnothing$ 2.6x8	:	N89-2608-46
F $\square$ 2.6x5	:	N09-3140-08
G WASHER	:	N19-1403-05
H $\varnothing$ 2x9	:	N09-3175-05
J WASHER	:	N19-1401-08
K WASHER	:	N19-1354-08



## EXPLODED VIEW (UNIT)

DP-MH5



DP-MH5

Parts with the exploded numbers larger than 700 are not supplied.

## PARTS LIST

\* New Parts  
Parts without **Parts No.** are not supplied.  
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.  
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Address	New Parts	Parts No.	Description	Desti- nation	Re- marks
<b>DP-MH5</b>						
601	1E	*	A01-3227-01	METALLIC CABINET(BLK)		
601	1E	*	A01-3436-01	METALLIC CABINET(SLV)		
602	2E	*	A21-1934-12	DRESSING PANEL (BLK)		
602	2E	*	A21-1942-12	DRESSING PANEL (SLV)		
603	2E		A29-0852-02	PANEL (SLV)		
603	2E	*	A29-0853-02	PANEL (BLK)		
604	2E	*	A60-1100-21	PANEL (SLV)		
604	2E	*	A60-1117-21	PANEL (BLK)		
608	2F		B07-2335-14	ESCUTCHEON		
609	2E	*	B10-2322-13	FRONT GLASS		
610	2E,2F	*	B12-0305-14	INDICATOR		
613	2E		B43-0301-04	KENWOOD BADGE		
-			B58-1507-00	CAUTION CARD		
625	1G		E35-1348-05	FLAT CABLE (17P)		
-			H10-7264-12	POLYSTYRENE FOAMED FIXTURE	MI	
-			H10-7265-12	POLYSTYRENE FOAMED FIXTURE	KY	
-			H20-0576-04	PROTECTION COVER	KY	
-			H25-0681-04	PROTECTION BAG	TEQ	
-		*	H50-2358-04	ITEM CARTON CASE	KY	
-		*	H50-2359-04	ITEM CARTON CASE	MI	
-		*	H50-2360-04	ITEM CARTON CASE(SLV)	TEQ	
-		*	H50-2361-04	ITEM CARTON CASE(BLK)	TEQ	
630	2G		J02-0366-15	FOOT		
-			J61-0307-05	WIRE BAND		
640	2F	*	K29-6591-02	KNOB (SLV)		
640	2F	*	K29-6616-02	KNOB (BLK)		
641	2F	*	K29-6592-12	KNOB (SLV)		
641	2F	*	K29-6617-12	KNOB (BLK)		
642	2E,2F	*	K29-6593-12	KNOB (SLV)		
642	2E,2F	*	K29-6618-12	KNOB (BLK)		

## MECHANISM PCB (J26-0009-08)

D1		SIR-33ST3	LED			
CN1		E40-4197-05	FLAT CABLE CONNECTOR(17P)			
CN2		E40-3264-05	PIN ASSY (6P)			
CN3		E40-3263-05	PIN ASSY (5P)			
CN4		E40-4972-05	PIN ASSY (3P)			
CN5		E40-3260-05	PIN ASSY (2P)			
-		J11-0808-05	WIRE CLAMPER			
SW2		S40-1140-05	PUSH SWITCH			
SW4 -8		S68-0025-05	PUSH SWITCH			
SW9 ,10		S40-1140-05	PUSH SWITCH			
PH1		RPT-38PT3F	PHOTO TRANSISTOR			

## CONTROL PCB (X32-3320-00)

D15 -17		B30-2430-05	LED			
D18 -23		B30-2494-05	LED			
C1		CK73FB1H103K	CHIP C	0.010UF	K	
C2		CK73FB1H472K	CHIP C	4700PF	K	
C3		CK73EB1C474K	CHIP C	0.47UF	K	

\* New Parts  
Parts without **Parts No.** are not supplied.  
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Teile ohne **Parts No.** werden nicht geliefert.

L : Scandinavia  
Y : PX(Far East, Hawaii)  
Y : AAFES(Europe)

K : USA  
T : Europe  
X : Australia

P : Canada  
E : Europe  
M : Other Areas

R : Mexico  
G : Germany  
Q : Russia

I : Malaysia

L : Scandinavia  
Y : PX(Far East, Hawaii)  
Y : AAFES(Europe)

K : USA  
T : Europe  
X : Australia

P : Canada  
E : Europe  
M : Other Areas

R : Mexico  
G : Germany  
Q : Russia

I : Malaysia

△ indicates safety critical components.

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Teile ohne **Parts No.** werden nicht geliefert.

3

\* New Parts  
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Teile ohne **Parts No.** werden nicht geliefert.

4

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
C81			CE04KW1A101M	ELECTRO	100UF	10WV		
C101,102			CC73FSL1H681J	CHIP C	680PF	J		
C103,104			CC73FSL1H151J	CHIP C	150PF	J		
CN1			E40-4997-05	FLAT CABLE CONNECTOR				
CN2			E40-4979-05	PIN ASSY				
CN3			E40-4942-05	FLAT CABLE CONNECTOR				
J1			E58-0006-05	RECTANGULAR RECEPTACLE				
E5 -7			J11-0809-05	WIRE CLAMPER				
L1			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)				
X1			L77-2190-05	CRYSTAL RESONATOR(16.9344MHZ)				
X2			L78-0290-05	RESONATOR (8MHZ)				
R1 -4			RK73FB2A473J	CHIP R	47K	J 1/10W		
R5			RK73FB2A753J	CHIP R	75K	J 1/10W		
R6			RK73FB2A104J	CHIP R	100K	J 1/10W		
R7			RK73FB2A101J	CHIP R	100	J 1/10W		
R8			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R9			RK73FB2A334J	CHIP R	330K	J 1/10W		
R10			RK73FB2A473J	CHIP R	47K	J 1/10W		
R11			RK73FB2A334J	CHIP R	330K	J 1/10W		
R12 ,13			RK73FB2A512J	CHIP R	5.1K	J 1/10W		
R14			RK73FB2A101J	CHIP R	100	J 1/10W		
R15			RK73FB2A752J	CHIP R	7.5K	J 1/10W		
R16			RK73FB2A562J	CHIP R	5.6K	J 1/10W		
R17 ,18			RK73FB2A104J	CHIP R	100K	J 1/10W		
R19			RK73FB2A333J	CHIP R	33K	J 1/10W		
R20			RK73FB2A104J	CHIP R	100K	J 1/10W		
R21			RK73FB2A103J	CHIP R	10K	J 1/10W		
R22			RK73FB2A684J	CHIP R	680K	J 1/10W		
R23			RK73FB2A105J	CHIP R	1.0M	J 1/10W		
R24 ,25			RK73FB2A114J	CHIP R	110K	J 1/10W		
R26			RK73FB2A105J	CHIP R	1.0M	J 1/10W		
R27			RK73FB2A155J	CHIP R	1.5M	J 1/10W		
R28			RK73FB2A514J	CHIP R	510K	J 1/10W		
R29			RK73FB2A563J	CHIP R	56K	J 1/10W		
R30			RK73FB2A104J	CHIP R	100K	J 1/10W		
R31			RK73FB2A223J	CHIP R	22K	J 1/10W		
R32			RK73FB2A154J	CHIP R	150K	J 1/10W		
R33			RK73FB2A1R5J	CHIP R	1.5	J 1/10W		
R34 ,35			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R36			RK73FB2A752J	CHIP R	7.5K	J 1/10W		
R37			RK73FB2A104J	CHIP R	100K	J 1/10W		
R38			RK73FB2A244J	CHIP R	240K	J 1/10W		
R39			RK73FB2A152J	CHIP R	1.5K	J 1/10W		
R40			RK73FB2A752J	CHIP R	7.5K	J 1/10W		
R41			RK73FB2A132J	CHIP R	1.3K	J 1/10W		
R42			RK73FB2A100J	CHIP R	10	J 1/10W		
R43			RK73FB2A224J	CHIP R	220K	J 1/10W		
R44			RK73FB2A105J	CHIP R	1.0M	J 1/10W		
R45			RK73FB2A4472J	CHIP R	4.7K	J 1/10W		
R46			RK73FB2A623J	CHIP R	62K	J 1/10W		
R47			RK73FB2A912J	CHIP R	9.1K	J 1/10W		
R48			RK73FB2A1R0J	CHIP R	1	J 1/10W		
R49			RK73FB2A103J	CHIP R	10K	J 1/10W		

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Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R50			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R51			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R52 ,53			RK73FB2A103J	CHIP R	10K	J 1/10W		
R54			RS14KB3A1R0J	FL-PROOF RS	1	J 1W		
R55 -57			RK73FB2A821J	CHIP R	820	J 1/10W		
R58			RK73FB2A21R0J	CHIP R	1	J 1/10W		
R59 -62			RK73FB2A220J	CHIP R	22	J 1/10W		
R63 -66			RK73FB2A104J	CHIP R	100K	J 1/10W		
R67			RK73FB2A1R5J	CHIP R	1.5	J 1/10W		
R68			RK73FB2A152J	CHIP R	1.5K	J 1/10W		
R69			RK73FB2A332J	CHIP R	3.3K	J 1/10W		
R70			RK73FB2A103J	CHIP R	10K	J 1/10W		
R71			RK73FB2A510J	CHIP R	51	J 1/10W		
R72			RK73FB2A105J	CHIP R	1.0M	J 1/10W		
R73			RK73FB2A104J	CHIP R	100K	J 1/10W		
R75 -84			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R85			RK73FB2A153J	CHIP R	15K	J 1/10W		
R86 ,87			RK73FB2A104J	CHIP R	100K	J 1/10W		
R88			RK73FB2A912J	CHIP R	9.1K	J 1/10W		
R91 ,92			RK73FB2A473J	CHIP R	47K	J 1/10W		
R93			RK73FB2A181J	CHIP R	180	J 1/10W		
R95 ,96			RK73FB2A331J	CHIP R	330	J 1/10W		
R97 ,98			RK73FB2A104J	CHIP R	100K	J 1/10W		
R99			RK73FB2A3R3J	CHIP R	3.3	J 1/10W		
R100			RK73FB2A471J	CHIP R	470	J 1/10W		
R101-104			RK73FB2A133J	CHIP R	13K	J 1/10W		
R105,106			RK73FB2A123J	CHIP R	12K	J 1/10W		
R107,108			RK73FB2A104J	CHIP R	100K	J 1/10W		
R109,110			RK73FB2A470J	CHIP R	47	J 1/10W		
R111,112			RK73FB2A104J	CHIP R	100K	J 1/10W		
R113-116			RK73FB2A512J	CHIP R	5.1K	J 1/10W		
R117			RK73FB2A912J	CHIP R	9.1K	J 1/10W		
R118			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R119			RK73FB2A242J	CHIP R	2.4K	J 1/10W		
R120			RK73FB2A911J	CHIP R	910	J 1/10W		
R121			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R122			RK73FB2A242J	CHIP R	2.4K	J 1/10W		
R123			RK73FB2A911J	CHIP R	910	J 1/10W		
R124			RK73FB2A203J	CHIP R	20K	J 1/10W		
R125			RK73FB2A912J	CHIP R	9.1K	J 1/10W		
R126			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R127			RK73FB2A242J	CHIP R	2.4K	J 1/10W		
R128			RK73FB2A911J	CHIP R	910	J 1/10W		
R129			RK73FB2A203J	CHIP R	20K	J 1/10W		
R130			RK73FB2A912J	CHIP R	9.1K	J 1/10W		
R131			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R132			RK73FB2A242J	CHIP R	2.4K	J 1/10W		
R133			RK73FB2A911J	CHIP R	910	J 1/10W		
R134-136			RK73FB2A271J	CHIP R	270	J 1/10W		
R137-142			RK73FB2A221J	CHIP R	220	J 1/10W		
R143			RK73FB2A272J	CHIP R	2.7K	J 1/10W		
R144			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R145			RK73FB2A272J	CHIP R	2.7K	J 1/10W		
R146			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R147			RK73FB2A272J	CHIP R	2.7K	J 1/10W		

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DP-MH5

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## PARTS LIST

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5

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Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
R148			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R149			RK73FB2A272J	CHIP R	2.7K	J	1/10W	
R150			RK73FB2A472J	CHIP R	4.7K	J	1/10W	
R151			RK73FB2A100J	CHIP R	10	J	1/10W	
R152			RK73FB2A471J	CHIP R	470	J	1/10W	
▲ R153			RS14KB3D181J	FL-PROOF RS	180	J	2W	
R154			RK73FB2A752J	CHIP R	7.5K	J	1/10W	
R155			RK73FB2A221J	CHIP R	220	J	1/10W	
R156			RK73FB2A103J	CHIP R	10K	J	1/10W	
R157			RK73FB2A332J	CHIP R	3.3K	J	1/10W	
VR1			R12-1619-05	TRIMMING POT.(4.7K)				
VR2 ,3			R12-3688-05	TRIMMING POT.(47K)				
S1 -21			S70-0031-05	TACT SWITCH				
D1 -6			HSS104	DIODE				
D1 -6			1SS133	DIODE				
D7 ,8			DA204U	DIODE				
D9			S5688B	DIODE				
D9			1SR139-400	DIODE				
△ D10 -12			HSS104	DIODE				
D10 -12			1SS133	DIODE				
D13			D2SBA20F03	DIODE				
D14			HSS104	DIODE				
D14			1SS133	DIODE				
IC1			CXA1782BQ	IC(RF SERVO)				
IC2			CXD2529Q	MOS-IC				
IC3		*	UPD78014FGC534	MI-COM IC				
IC4		*	BA5936S	ANALOGUE IC				
IC5		*	PST993D-T	ANALOGUE IC				
IC7			NJM2100M	IC(OP AMPLIFIER)				
IC9			M5237L	ANALOGUE IC				
Q1			2SC1740S(Q,R)	TRANSISTOR				
Q1			2SC2785(F,E)	TRANSISTOR				
Q2			2SA954(L,K)	TRANSISTOR				
Q3			DTA124ESA	DIGITAL TRANSISTOR				
Q3			UN4112	DIGITAL TRANSISTOR				
Q4 ,5			2SB1412F5(Q,R)	TRANSISTOR				
Q8			2SA1534A	TRANSISTOR				
△ A1			W02-1114-05	OSCILLATING MODULE				

## MECHANISM (D40-1525-05/CDM-29)

1	3C	A10-3202-08	CHASSIS	(MAIN)				
2	3D	A11-1063-18	SUB CHASSIS	(RIGHT)				
3	3B	A13-3024-08	FRAME					
5	3C	D10-3555-08	SLIDER	(MAIN)				
6	3C	D10-3556-08	SLIDER	(CD-TRAY)				
7	3C	D10-3557-08	LEVER	(CD-TRAY)				
8	3C	D10-3558-08	LEVER	(TRAY-A)				
9	2C	D10-3559-08	LEVER	(GUIDE-A)				
10	2C	D10-3560-08	SLIDER	(LIFT)				
11	3D	D10-3561-08	SLIDER	(LOADING)				
12	3D	D10-3562-08	LEVER	(LOADING)				
13	2D	D10-3565-08	SLIDER	(UP/DOWN)				
14	2D	D10-3566-08	ARM	(UP/DOWN)				

Ref. No	Address	New Parts	Parts No.	Description			Desti- nation	Re- marks
15			D10-3578-08	LEVER	(LIMIT)			
16			D10-3579-08	LEVER	(SWITCH LOAD)			
17			D10-3580-08	LEVER	(TRAY-B)			
18			D10-3581-08	LEVER	(STOCK SWITCH)			
19			D10-3582-08	LEVER	(GUIDE-B)			
20			D10-3600-08	ARM	(SWITCH)			
21			D10-3605-08	LEVER	(GUIDE-C)			
22			D10-3659-04	ROD				
25			D12-0152-08	CAM	(GEAR)			
26			D13-1756-08	GEAR	(CENTER)			
27			D13-1691-08	GEAR	(FINAL-A)			
28			D13-1692-08	GEAR	(IDLER-A)			
29			D13-1693-08	GEAR	(IDLER-B)			
30			D13-1694-08	GEAR	(FINAL-B)			
31			D13-1696-08	WORM	(PULLEY)			
32			D13-1697-08	GEAR	(SUN)			
33			D13-1698-08	GEAR	(INTERNAL)			
34			D13-1699-08	GEAR	(CARRIER)			
35			D13-1700-08	GEAR	(PLANET)			
36			D13-1701-08	RACK	(BRAKE)			
37			D13-1702-08	GEAR	(TOP)			
38			D13-1737-08	GEAR ASSY	(BOTTOM)			
39			D13-1706-08	GEAR	(IDLER-C)			
40			D13-1719-08	GEAR	(HELICAL)			
41			D13-1765-03	GEAR	(DRIVING)			
42			D13-1757-08	GEAR	(PULLEY 2)			
43			D13-1763-04	GEAR	(MIDDLE)			
46			D16-0383-08	BELT	(A)			
48			D21-1794-08	SHAFT	(PULLEY)			
50			D21-1796-08	SHAFT	(WORM)			
51			D21-1797-08	SHAFT	(CAM GEAR)			
55			E35-1147-08	FLAT CABLE	(16P)			
56			E35-1148-08	WIRING HARNESS	(6P)			
57			E35-1162-05	WIRING HARNESS	(2P)			
61			E40-3264-05	PIN ASSY	(6P)			
70			G01-0192-04	SOFT TAPE				
71			G01-3780-08	EXTENSION SPRING				
72			G01-3781-08	COMPRESSION SPRING (A)				
73			G01-3782-08	EXTENSION SPRING				
74			G01-3799-08	COMPRESSION SPRING (B)				
75			G01-3800-08	COMPRESSION SPRING (C)				
76			G01-3825-08	TORSION SPRING				
77			G01-3826-08	EXTENSION SPRING				
78			G01-3847-08	COMPRESSION SPRING (D)				
79			G02-1079-08	FLAT SPRING	(C)			
80			G13-0521-08	CUSHION				
81			G13-0522-08	CUSHION	(B)			
82			G16-0821-04	SHEET	(TRAY-B)			
83			G13-0523-08	CUSHION	(C)			
84			G13-0525-08	CUSHION	(D)			
85			G16-0880-08	SOFT TAPE				
86			G13-0538-08	CUSHION				
87			G16-0881-08	CUSHION E				

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## PARTS LIST

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Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
90	2A,2B		J02-1133-08	INSULATOR		
91	1D		J11-0098-05	STYLE PIN		
92	1D		J11-0804-08	CLAMPER		
93	1C		J19-3768-08	HOLDER	(TOP)	
96	2D		J19-3773-18	BRACKET	(GEAR-A)	
97	1D		J19-3774-08	BRACKET	(CLAMP)	
98	3D		J19-5726-08	BRACKET	(MOTOR 2)	
99	2C		J19-3797-08	HOLDER ASSY	(BOTTOM-F)	
100	2C		J19-3798-08	HOLDER ASSY	(BOTTOM-R)	
105	2C		J90-0826-08	GUIDE	(DISC)	
106	1C		J90-0827-08	GUIDE	(TOP)	
107	3D		J90-0828-18	RAIL	(LOADING)	
108	3D		J90-0830-08	RAIL	(R)	
109	3C		J90-0833-08	GUIDE	(TRAY)	
110	1A		J90-0844-03	GUIDE	(RAIL)	
200	3C		J99-0570-08	TRAY	(MAIN)	
201	2C		J99-0572-08	TRAY	(STOCK)	
F			N09-3140-08	SCREW	(E/M2.6X5)	
J			N19-1401-08	WASHER	(5.3X10X1)	
K			N19-1354-08	NYLON WASHER		
205	3C		S64-0015-08	LEVER SWITCH	(SW3)	
206	2A		S74-0065-05	LEAF SWITCH		
211	2D,3D		T42-0821-05	MOTOR ASSY		
212	1D		T99-0503-15	MAGNET		
DM	1B		A11-1114-08	SUB CHASSIS ASSY		
FM	2A		T42-0872-08	MOTOR ASSY		
PU	1B		T25-0050-05	PICK-UP ASSY	(KCP1H)	

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# DP-MH5

## SPECIFICATIONS

### CD player unit (DP-MH5)

#### [Format section]

Laser ..... Semiconductor laser

#### [D/A convertors section]

D/A conversion ..... 1 bit  
Oversampling ..... 8 ft (352.8 kHz)

#### [Audio section]

Frequency response ..... 8 Hz ~ 20 kHz,  $\pm 1.0$  dB  
Signal to noise ratio ..... More than 96 dB  
Dynamic range ..... More than 90 dB  
Total harmonic distortion ..... Less than 0.008 % (at 1 kHz)  
Channel separation ..... More than 90 dB (at 1 kHz)  
Wow & Flutter ..... Unmeasurable Limit  
Digital output  
Optical ..... -15 dBm ~ -21 dBm (wave length 660 nm)

#### [General]

Dimensions ..... W : 270 mm (10-5 / 8")  
..... H : 104 mm (4-1 / 8")  
..... D : 326 mm (12-13 / 16")

#### Weight (net)

DP-MH5 ..... 3.4 kg (7.5lb)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.  
2. Sufficient performance may not be exhibited at extremely cold locations (where water freezes).

#### Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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